

**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE**

CIRBA INC. (d/b/a DENSIFY)  
and CIRBA IP, INC.,

Plaintiffs,

v.

VMWARE, INC.,

Defendant.

Civil Action No. 1:19-cv-00742-LPS

**PUBLIC REDACTED VERSION**

**DENSIFY'S SUPPLEMENTAL LETTER BRIEF  
AS TO VMWARE'S POST-TRIAL MOTIONS**

Kenneth L. Dorsney (#3726)  
kdorsney@morrisjames.com  
Morris James LLP  
500 Delaware Avenue, Suite 1500  
Wilmington, DE 19801  
Telephone: (302) 888-6800

**ATTORNEYS FOR PLAINTIFFS CIRBA,  
INC. (d/b/a DENSIFY) and CIRBA IP, INC.**

Dated: June 11, 2020

Dear Chief Judge Stark:

Densify respectfully submits this brief in response to the Memorandum Order of June 3, 2020 (D.I. 752, the “Order”) requesting additional letter briefs on two issues.

# **1. Impact Of Standing Ruling**

## **A. The Impact On Pending Motions**

The effect of the Court’s standing analysis turns in large measure on whether it involves mere statutory standing or goes to the constitutional jurisdiction of the Court (Article III standing). Recent Federal Circuit authority makes clear that “whether one qualifies as a patentee under 35 U.S.C. § 281 is a statutory prerequisite to the right to relief in a patent infringement action, but *does not implicate the district court’s subject matter jurisdiction.*” *Schwendimann v. Arkwright Advanced Coating, Inc.*, 959 F.3d 1065, 2020 WL 2466231, at \*3 (Fed. Cir. May 13, 2020) (emphasis added). Just two days before oral argument on post-trial motions, *Schwendimann* clarified that the § 281 inquiry is not constitutional, based on the recent *Lone Star* decision, which held that ““whether a party possesses all substantial rights in a patent does not implicate standing or subject-matter jurisdiction.”” *Id.* (quoting *Lone Star Silicon Innovations LLC v. Nanya Tech. Corp.*, 925 F.3d 1225, 1226 (Fed. Cir. 2019)). In doing so, the Federal Circuit aligned itself with the Supreme Court’s decision in *Lexmark Int’l, Inc. v. Static Control Components, Inc.*, 572 U.S. 118 (2014), and overruled its prior precedents treating the prerequisites of the Patent Act as jurisdictional. *See Schwendimann, supra*, at \*3.<sup>1</sup>

Accordingly, the question of whether Cirba Inc. (“Inc.”) satisfied the prerequisites of § 281 based on the details of its license with Cirba IP, Inc. (“IP”) is one of only “statutory standing,” which does not affect the Court’s jurisdiction. The Court has constitutional jurisdiction over Inc.’s patent claims, and Inc. should not be dismissed from the case.<sup>2</sup> As the Court found, VMware’s motion purported to invoke only constitutional standing, not statutory standing, and depended on this distinction to be timely. D.I. 752 at 3 n.1. There are several implications of this being only a statutory question.

### **i. VMware Forfeited The § 281 Issue.**

First, and most obviously, VMware forfeited this statutory issue by bringing it up too late and not raising it at trial. In contrast to subject matter jurisdiction, which may be raised at any time, whether a plaintiff meets the statutory prerequisites for bringing an action under the Patent Act must be timely raised and preserved, and can be forfeited. *E.g., Gilda Indus., Inc. v. United States*, 446 F.3d 1271, 1280 (Fed. Cir. 2006). VMware did not raise an objection to Inc.’s standing in its

<sup>1</sup> Although Densify believes that the impact of *Schwendimann* is fairly included in the supplemental briefing the Court has ordered, out of an abundance of caution, Densify will file a motion for reconsideration in light of *Schwendimann*.

<sup>2</sup> While a separate question from § 281, there is, in fact, constitutional standing and subject matter jurisdiction here. There is a case or controversy under the Patent Act, thus the Court has statutory and constitutional authority to adjudicate the case. *Id.* at \*3. Further, “[i]t is settled that in a case involving joined, individual plaintiffs bringing a shared claim seeking a single remedy, Article III’s case-or-controversy requirement is satisfied if one plaintiff can establish injury and standing. *See, e.g., Rumsfeld v. Forum for Acad. & Institutional Rights, Inc. (FAIR)*, 547 U.S. 47, 52 n.2 (2006). In that event, it is immaterial that other plaintiffs might be unable to demonstrate their own standing.” *J.D. v. Azar*, 925 F.3d 1291, 1323 (D.C. Cir. 2019). It is routine, for example, for a court to allow permissive intervention without determining whether the intervenor satisfies Article III or to resolve a case involving multiple plaintiffs without ascertaining whether every plaintiff has Article III standing. Here, IP has Article III standing, so it is immaterial whether Inc. also has constitutional standing.

Answer, nor did it file a Rule 12(b)(6) motion, a Rule 12(c) motion, or a summary judgment motion (nor did it seek leave to do so). VMware listed standing in the Pretrial Order as an issue to be tried, D.I. 439, Ex. 3 at 1-2, but then it did not try the issue. There were no jury instructions on Inc.'s standing, and VMware requested none. VMware made no arguments to the jury as to Inc.'s standing and presented no evidence. It made no oral motion for judgment as a matter of law on this issue. TT 1153-55, 1544-45, 1638-43, 1687-88. Inc.'s statutory standing to sue under § 281 is no different from any other statutory element of a case – any objection must be timely raised or it is forfeited.<sup>3</sup>

## **ii. Cirba Inc. Owns And Controls Cirba IP, Inc., Conferring Standing.**

Even under prior law viewing § 281 as a constitutional question, Inc. need not be dismissed. Courts have recognized that a parent of a wholly-owned subsidiary that owns the patents can have sufficient standing to join a patent infringement action with its patent-owning subsidiary. *See Atmel Corp. v. Authentec, Inc.*, 490 F.Supp.2d 1052, 1055 (N.D.Cal. 2007) (finding implied exclusive license based on the parent's control over the subsidiary, where no other licenses had been granted, the parent alone practiced the patent, and the parent was responsible for its enforcement); *Cognex Corp. v. Microscan Sys., Inc.*, 2014 WL 2989975 at \*5-6 (S.D.N.Y. June 30, 2014); *Kalman v. Berlyn Corp.*, 914 F.2d 1473, (Fed. Cir. 1990), *clarified* 1991 WL 345039 (1991). *See also Franchise Tax Bd. Of Cal. v. Alcan Alum. Ltd.*, 493 U.S. 331, 336-37 (1990) (holding parent company had Article III standing to challenge taxes levied on its wholly-owned subsidiary).

Here, IP is the wholly owned subsidiary of Inc. D.I. 439 at 43. Inc. alone has practiced the patent, [REDACTED], testified that no other licenses had been or would be granted, and [REDACTED]. *See* TT at 1052:5-10 (Smith); D.I. 606 ¶¶ 1, 15, 17; D.I. 616 ¶¶ 1, 23. Given these facts, Inc. had standing to bring this action even if Inc.'s ability to bring a § 281 action were a matter of jurisdiction.

## **iii. Densify's Post-Trial Motions Are Unaffected.**

Densify's damages-related post-trial motions would be unaffected for the reasons discussed above. Also, ongoing royalties, enhanced damages, and interest would not be affected even if IP had been the only patent plaintiff at trial – nothing about those remedies is particular to Inc.

Densify's permanent injunction motion also is unaffected – even under pre-*Lone Star* law, courts allowed the parent of wholly-owned subsidiary that owns the patent to pursue equitable relief even if it lacked the exclusive license necessary to obtain legal relief. *See, e.g., Hologic, Inc. v. Minerva Surgical, Inc.*, 163 F.Supp.3d 118 (D.Del. 2016); *Steelcase, Inc. v. Smart Techs., Inc.*, 336 F. Supp. 2d 714, 718 (W.D. Mich. 2004). Here, like *Hologic*, IP is wholly owned by Inc., which

[REDACTED] Inc. can, as a factual matter, enforce the exclusive rights it

<sup>3</sup> Because a § 281 statutory issue was not timely raised, there is no need for the Court to take any steps beyond noting that the objection was forfeited. However, if it had been raised (as it was in *Schwendimann*), the Court would have additional options to address any perceived deficiency under § 281, such as reforming the licensing agreement to reflect the parties' intent to have a fully exclusive license and the reality that the patents have never been licensed to any other entity. *See, e.g., Schwendimann*, at \*5-6 (affirming reformation of contract that previously did not confer sufficient rights under § 281).

<sup>4</sup> The Court need not reach equitable standing given there is subject matter jurisdiction. But if needed, Densify can supplement the permanent injunction record with evidence showing Inc.'s complete control over IP's business decisions, patent enforcement, and licensing policies.

intended to have under the license by virtue of its corporate relationship and shared management. Under these circumstances, Inc. has standing to pursue the motion for permanent injunction.

Densify's request for a permanent injunction would not be materially affected even if IP were the only patent plaintiff. IP's interests as a wholly-owned subsidiary are aligned with Inc., which exclusively sells products practicing the patents in competition with VMware. If Inc. suffers harm, so does IP. The Court can consider in equity that IP seeks to protect the competitive rights of Inc., which is responsible for bringing to market the products covered by the '687 patent.

## **B. The Impact Of The Ruling On Trial**

Even if IP had been the sole patent plaintiff, trial would not have been affected. As a threshold matter, Inc. still would have been a co-plaintiff at trial on its trademark claim.

Everything material about the patent case would have been the same, including the same witnesses and exhibits. See *Pipe Liners, Inc. v. Am. Pipe & Plastics, Inc.*, 893 F. Supp. 704, 706 (S.D. Tex. 1995) (noting the "presence or absence" of the corporate parent would not make a difference because the case involved "the same discovery, the same arguments, and the same trial witnesses"). Infringement and inducement are questions of VMware's products and conduct in relation to the claim limitations, unaffected by IP being the only patent plaintiff. The same is true of willfulness, which turns on VMware's conduct. Validity also has nothing to do with whether IP was the sole plaintiff. The jury considered reasonable royalties, not lost profits. The reasonable royalty analysis would have been the same under the *Georgia Pacific* factors, particularly given that the hypothetical negotiation in 2012 would have been with Inc., the entity that owned the patents at the time of the negotiation, and IP's interests are aligned with its [REDACTED]. Even the surrounding facts would be the same given the corporate relationship between IP and Inc., and IP surely would discuss the harm to Inc. Indeed, Inc. owned the patents until March 21, 2016.

This conclusion is bolstered by the fact that neither party placed any emphasis on the distinction between Inc. and IP at trial. VMware did not distinguish between the two in any meaningful way, consistently referring to the plaintiffs collectively as "Cirba." Plaintiffs referred to both entities as "Densify." No evidence at trial would have been rendered inadmissible if IP was the only patent plaintiff. Indeed, VMware cannot claim prejudice at this point, having not asserted this defense in its Answer or any pretrial motion and having not raised this issue with the Court until 11 days before trial, and even then it did not file a motion or request a pretrial ruling. (D.I. 752 at 10-11 n.4). Any prejudice was of VMware's own making.

Furthermore, as a matter of law, the verdict should stand because the jury found that VMware willfully infringed valid patents and that IP (as well as Inc.) is entitled to a reasonable royalty in the amounts awarded. As stated on the verdict form, the jury found "Densify" (which referred to both Inc. and IP) proved VMware infringed both patents (D.I. 550, Qs 1, 4), that VMware induced infringement of the '687 patent (Q 2), that VMware's infringement was willful (Qs 3, 6), and the amount of a reasonable royalty (Qs 11, 12). The jury also found VMware failed to prove that the '687 patent was invalid. Because the facts at issue in the new trial would be identical to those that have already been decided, the jury's verdict is law of the case, and there is no reason to hold a new trial. *Herber v. Johns-Mansville Corp.*, 785 F.2d 79, 90 (3d Cir. 1986) (jury's findings "are now law of case and must be accepted as true"); *Passaic Valley Sewage Com'rs v. Holbrook, Cabot & Rollins Corp.*, 6 F.2d 721, 723 (3d Cir. 1925) ("The case was submitted and a verdict rendered. Therefore we must accept the verdict of the jury as having established certain facts.").

## **2. Evidence Supporting The "Virtualized Environment" Limitation Of Claim 7**

The Court ordered additional briefing focused on the question of whether there was sufficient



trial “proof on the ‘virtualized environment’ limitation of” claim 7 of the ’687 Patent.<sup>5</sup> (D.I. 752 at 11). The Court instructed the jury that the phrase “virtualized environment” should be given its plain and ordinary meaning. TT at 1661:25-1662:2. Densify has consistently pointed out that the “virtualized environment” is a particular environment as defined by VMware’s software – it is the boundary within which the VMs are moved among hosts. Thus, for example, with DRS, the “virtualized environment” is the cluster. At claim construction and in post-trial arguments, VMware asserted that Densify is simply engaged in “arbitrary subsetting,” meaning that the “virtualized environment” is malleable for litigation purposes to include as few or as many VMs and hosts as helpful to a particular infringement argument. The Court therefore requested briefing on whether trial evidence shows the claim limitations were met within a particular “virtualized environment.” D.I. 752 at 11. As shown below, the virtualized environment here is not a litigation-defined subset and not in any way arbitrary -- it is the environment defined by VMware’s software.

VMware cannot meet its burden of showing there is insufficient evidence from which a jury could find a “virtualized environment” and justifying the drastic remedy of judgment of a matter of law. The trial evidence overwhelmingly supports the conclusion that the “virtualized environment” for DRS is a cluster. DRS is programmed to operate in a cluster. Professor Madisetti testified about how DRS is programmed to operate. TT 468:19-469; TT 418:5 – 419:14. And he made clear that DRS “focuses on a single cluster.” TT 468:23-469:1; *see also* TT 472:2-3 (Group 1 “is a single cluster”). Mr. Hiller testified that a cluster can be a virtualized environment. TT 406:14-15 (“Q: So could a virtual environment be a single cluster? A: Absolutely...”); TT 355:25-356:5 (explaining an example of validating an existing virtualized environment would be evaluating placements of VMs in a cluster); TT 343:20-344:6 (agreeing with VMware’s counsel that in DRS a cluster is the boundary within which VMs can be moved, DRS manages the hosts within that cluster.).

PTX-2035, a VMware document entitled “Understanding vSphere DRS Performance,” is a particularly useful exhibit describing how DRS operates. It repeatedly refers to DRS operating only in a cluster, which it also refers to as the “DRS Cluster.” It makes clear at the outset: “DRS works on a cluster of ... hosts and provides resource management capabilities like load balancing and virtual machine (VM) placement.” *Id.* at 0004. And it describes how DRS works on the cluster – i.e., the very point of DRS is to place and migrate VMs within the cluster. *Id.* Nearly every page of text refers to the cluster and how DRS places VMs on hosts within the cluster based on technical, workload, and business constraints. *Id.* at PTX-2035\_0004, 0015–17; 0019–24; 0026; 0030–34. For example, it makes clear that “resource utilization is always balanced across the cluster” (PTX-2035\_0004), “DRS uses a cluster-level balance metric” to make load-balancing decisions (PTX-2035\_0005), “DRS looks for the demand for every running VM in the cluster” (*id.*), “DRS also collects resource availability data from each and every VM and host in the cluster” (*id.*), in DRS, it is cluster settings that the user adjusts (PTX-2035\_0006), “[i]n a fully automated cluster, DRS generally has complete control over where every VM in the cluster is placed” (PTX-2035\_0008), DRS “VM/Host Rules (or just Rules)” “help define special conditions on VMs and/or hosts in a DRS cluster” (PTX-2035\_0008), and provides examples of screens showing how the placement of VMs on hosts is controlled with the DRS cluster as the virtualized environment under consideration. PTX-2035\_0017–19, 0022–23, 0031–35. *See also* TT 473:9-17 (Madisetti) (explaining that PTX-2035 meets the preamble of claim 7 because “DRS within vSphere ensures that each virtual machine **in the cluster** gets the host resources . . . that it needs. So it describes that how this accused product validates **an existing virtualized environment.**”) (emphasis added); TT 510:19-511:1 (Madisetti) (“vSphere in the context of the single cluster, gathers the data, evaluates each VM and each host, and other VMs for technical business and workload constraints, and also provides recommendations

---

<sup>5</sup> Claim 3 does not require a “virtualized environment.” While not at issue in this brief, the evidence also shows infringement of claim 3.

which are alternative placements, therefore satisfying all limitations of claim 7.”); TT 506:1-15 (Madisetti) (explaining that PTX-2035 shows how “DRS looks for the demands of every running VM in the cluster,” including VM to VM evaluation, and data from each and every VM and host “in the cluster”). Indeed, VMware’s documents make clear that “**VM-Host affinity rules apply to a specific cluster.**” PTX-2190\_0184 (emphasis added).

There are many more examples of admitted exhibits showing that the virtualized environment for DRS is the cluster, including PTX-3285\_0001 (describing how DRS

and

PTX-2190\_0108 (“DRS is a simple clustering solution...”); and PTX-2190\_0167 (“DRS determines the cluster imbalance...”); DTX-4383 at 75 (“You can control the placement of virtual machines on hosts within a cluster by using affinity rules. . . . Because VM-Host affinity rules are cluster-based, the virtual machines and hosts that are included in a rule must all reside in the same cluster.”); PTX-2057\_0099 (“VM-Host affinity rules are cluster-based”).

PTX-2035 also states “[o]nce a rule is set, DRS has to honor it, and has to make recommendations in accordance to the rule, along with its placement and load balancing logic.” *Id.* at PTX-2035\_0008. The point is that DRS is programmed to evaluate and place VMs on hosts in a cluster, based on information pertaining to workload, technical, and business constraints in that cluster, which is the “virtualized environment” under consideration. TT 510:19-511:1 (“vSphere in the context of the single cluster, gathers the data, evaluates each VM and each host, and other VMs for technical business and workload constraints, and also provides recommendations which are alternative placements, therefore satisfying all limitations of claim 7.”). In accordance with claim 7, this “virtualized environment” is comprised of a plurality of virtual machines placed on one or more hosts. TT 469:19-24.

DRS is programmed to meet each of claim 7’s limitations within the cluster when a business rule is used. TT at 468:10- 511:1 (Madisetti) (explaining the steps in the source code used to perform technical, business, and workload checks within the cluster); PTX-2190\_167 (“DRS performs multiple calculations and passes in order to generate migration recommendations. . . . Prior to determining the current load imbalance, DRS checks for constraint violations [and] determines whether DRS needs to . . . correct Mandatory VM-Host affinity/anti-affinity rule violations, correct VM/VM anti-affinity mode violations . . .”). DRS with business rules is programmed such that the “virtualized environment” is the cluster and the other limitations are met within that cluster. *See, e.g.* TT 491:13-20 (“So this code shows that there is an evaluation for each VM against each and every host, both for affinity, which is technical and business constraints, and also has capacity, which is a workload constraint.”); PTX-3650 (VMware Source Code—VMW-SC-00000001–5495).

The question then is the record evidence of use of DRS with these rules. “[A] finding of infringement can rest on as little as one instance of the claimed method being performed during the pertinent time period.” *Lucent Techs., Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1317 (Fed. Cir. 2009). “[D]irect evidence of a fact is not required. Circumstantial evidence is not only sufficient, but may also be more certain, satisfying and persuasive than direct evidence.” *Michalic v. Cleveland Tankers, Inc.*, 364 U.S. 325, 330 (1960). The ultimate question is whether “the jury . . . could have reasonably concluded that, sometime during the relevant time period . . . , more likely than not one person somewhere in the United States had performed the claimed method using the [software at issue].” *Lucent*, 580 F.3d at 1318.

The evidence of customer use of DRS with business rules is extensive. *See* PTX-1214\_0002

[REDACTED] TT 544:20-545:14  
 (Madisetti explaining PTX-3368); PTX-3368 0005 [REDACTED]

[REDACTED] TT 585:5-596:11 (Madisetti discussing PTX-1106); PTX-1106 0006 [REDACTED]  
 [REDACTED] and PTX-1106 0012 [REDACTED]  
 TT 257:24-260:8 (Hillier) (explaining that some customers, like [REDACTED], have thousands  
 of DRS rules, including to address business constraints such as banking and compliance  
 requirements); PTX-1114 0042 ([REDACTED]);  
 TT 941:22-943:19 (discussing PTX-1114); PTX-1841 0001 ([REDACTED])  
 [REDACTED] TT 958:7-960:9 (explaining evidence of extensive  
 usage of DRS and affinity and anti-affinity rules). See also D.I. 672 at 3-9, 17-22.

The Federal Circuit in *Lucent* found far less evidence of use sufficient to support the jury's verdict. The case involved, *inter alia*, a calendar date-picker tool in Microsoft's Outlook software. The issue was direct infringement by customers, and Microsoft (like VMware) argued that Plaintiff "failed to introduce any evidence that any customer actually used the claimed method in any of the Microsoft product." 580 F.3d at 1317. Microsoft also pointed out that mere use of Outlook by customers did not mean that infringement was inevitable because there were numerous non-infringing uses of the software. The Federal Circuit rejected Microsoft's arguments, finding the following circumstantial evidence of use sufficient to sustain the jury's infringement verdict:

- that Plaintiff's expert testified that it was "hard to imagine" that only he and Plaintiff's trial team "had ever used" the accused software;
- that "Microsoft not only designed the accused products to practice the claimed invention, but also instructed its customers to use the accused products in an infringing way";
- there were extensive sales of the Microsoft products (only a small part of which was the accused functionality) and the dissemination of the instruction manuals, with "corresponding testimony from [Plaintiff's] infringement expert."

*Id.* at 1318.

The evidence here is much more extensive. In addition to the evidence above, VMware programmed DRS with business rules in a way that, when used, infringes claim 7. See TT (Madisetti) 468:12-511:1; PTX-2190\_167. VMware disseminated detailed instructions and encouragement for its customers to use DRS in an infringing way, and made extensive sales of DRS. TT 543:11-544:6 (explaining Hands On Labs); PTX-2057\_0096 – 101 ("Using DRS Affinity Rules"); DTX-4383 at 75 – 78 ("Using Affinity Rules"); PTX-2190 0179 – 190; PTX-2035; PTX-3605 ([REDACTED]). See also PTX-1122 0023 ([REDACTED])

[REDACTED] TT 941:22-943:19; TT 260:12 – 264:3 (Mr. Hillier discussing  
 DRS affinity rules); PTX-3498 [REDACTED]'s DRS affinity rules). This testimony was supported by Prof. Madisetti, who also testified that "VMware has designed its product to be used in an infringing



manner, and instructs its customers to use it in an infringing manner. Therefore, it is reasonable to expect direct infringement and indirect infringement by its customers.” TT at 650:10-14. And VMware acknowledged, as it must, that it tests all products in the U.S. before selling them to customers, TT 905:13-907:2, and its various customer documentation provides detailed instructions (including screenshots) on how to use DRS in an infringing manner – which are sufficient to show VMware’s use as well, especially when combined with the evidence above.

The evidence of a “virtualized environment” for vROps (Group 2) and compute policies (Group 3)<sup>6</sup> was equally compelling. In vROps the “virtualized environment” is programmed to be multiple clusters. TT 418:24-419:14; 468:19-469:6; 511:4-18; 513:10-25; PTX-3647. And there is sufficient evidence of use of vROps and encouragement of its use. DTX-4428 at 4; PTX-2179 (Hands on Lab); PTX-2076\_0029 – 36; PTX-1579; PTX-3368; PTX-1030; PTX-1160. For compute policies, the “virtualized environment” is programmed to be the customer’s cloud environment, often referred to as a software defined datacenter (“SDDC”). TT 418:24-419:14; TT 468:19-469:6; 525:20-527:20 (“[W]hatever we looked at with respect to vSphere that was previously running on a cluster is now running on the cloud.”); 533:8-534:4 (“compute policy applies to all hosts within a software defined datacenter”). And there is sufficient evidence of use of compute policies in VMC on AWS through VMware’s encouragement. See PTX-1648\_0005 ( [REDACTED] )

In sum, the trial record contains more than sufficient evidence to support the jury’s verdict by showing that the accused VMware software products at issue were programmed to meet the “virtualized environment” limitation. In DRS, the “virtualized environment” is the cluster, in vROps it is multiple clusters, and for compute policies it is the SDDC. Accordingly, the jury’s verdict of infringement should not be overturned, and VMware’s JMOL motion should be denied.



Page 8

Respectfully,

*/s/ Kenneth L. Dorsney*

Kenneth L. Dorsney (#3726)  
kdorsney@morrisjames.com

cc: All counsel of record (via CM/ECF and electronic mail)